

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

690 Walnut Ave.St. 150

Vallejo, CA 94592-1133

(707) 649-5453

(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-012404**Date Inspected:** 25-Feb-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG & Tower**Summary of Items Observed:**

CWI Inspectors: Mr. Li Yang , Mr. Gong Liang Zhu

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bays 1 through 9

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 1 through 9.

OBG Bays 13 and 14

This QA Inspector observed no ZPMC personnel were working on Caltrans OBG segments or tower assemblies in OBG Bays 13 or 14 and the majority of the overhead lights were turned off.

Tower Bay 10

This QA Inspector observed ZPMC welder Mr. Sun Guang Ping, stencil 50289 is using shielded metal welding process WPS-345-SMAW-2G(2F)-Repair to make groove weld repair weld NSTL4-3B/L-5B between north tower

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

lift 4 skin plate corner weld at location Y=2400mm. This QA Inspector observed CWI Mr. Gong Liang Zhu is monitoring this welding and this QA Inspector measured a welding current of 215 amps. Mr. Sun Guang Ping appears to be certified to make this weld. This QA Inspector observed the base material has electrical heaters installed to preheat and maintain the base material temperature and the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 500363 has recently completed is using shielded metal welding process WPS-345-SMAW-2G(2F)-Repair to make groove weld repair weld NSTL4-3B/L-5B between north tower lift 4 skin plate corner weld at location Y=27900mm. This QA Inspector observed CWI Mr. Gong Liang Zhu has recorded a welding current of 225 amps. This QA Inspector observed the base material has electrical heaters installed maintain the base material temperature. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Trial Assembly

This QA Inspector observed ZPMC welder Mr. Dai Lu, stencil 048659 is using shielded metal arc procedure WPS-345-SMAW-3G(3F)-Repair to make OBG segment 7AW repair weld SEG033B-011 as authorized by weld repair document B-WR-10697. This QA Inspector observed ZPMC CWI Mr. Li Yang has recorded a welding current of 147 amps. This QA Inspector confirmed that Mr. Dai Lu is certified to make this weld and ZPMC had electric heaters on the steel to preheat the base material prior to commencement of the welding. This QA Inspector observed the shielded metal arc welding electrodes are being stored in an electrically heated electrode storage container is connected to the welding power supply cable. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information. Note: QC has recorded that Mr. Dai Lu also completed longitudinal diaphragm weld repair FB033-001-128 at OBG segment 6CW in accordance with weld repair B-WR10686 and weld repair FB029-001-128 at OBG segment 6CW in accordance with weld repair B-WR10685.

ABF issued "Inspection Notification Sheet" number 02242010-1 item #1 informing QA that at 1830 hours ABF Inspectors will be performing ultrasonic (UT) inspections of repaired weld OBW6C-001, 002 which joins the counterweight side plate of OBG segment 6BW to segment 6CW. This QA Inspector observed weld OBW6C-001, 002 have been marked by ABF ultrasonic inspectors as being UT accepted. This QA Inspector performed ultrasonic inspections at of weld OBW6C-001 at location 1930mm and weld OBW6C-002 at locations 680 and 785mm for detection of longitudinal and planar transverse indications utilizing scanning patterns A, B, C and D (AWS D1.5 Fig 6.7) and no UT rejections were observed. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
